

What is claimed is:

1. A gene coding for either one of the following proteins (a) or (b):
(a) a protein consisting of the amino acid sequence shown in SEQ ID NO:2; or
(b) a protein consisting of an amino acid sequence shown in SEQ ID NO:2 by deletion substitution or addition of one or more amino acids, which exhibits scytalone dehydratase activity in the presence of a scytalone dehydratase inhibitor.
2. A gene according to claim 1, wherein the scytalone dehydratase inhibitor inhibits dehydration reaction from scytalone to 1,3,8-trihydroxynaphtalene in a melanin biosynthesis pathway.
3. A gene according to claim 1, wherein the scytalone dehydratase inhibitor is carpropamid.
4. A scytalone dehydratase encoded by the gene of claim 1.
5. A recombinant vector comprising the gene of claim 1.
6. A transformant obtained by transformation of the recombinant vector of claim 5.
7. A method for assessing sensitivity of a rice blast fungus to a scytalone dehydratase inhibitor, comprising the steps of:

(a) identifying an amino acid in an amino acid sequence of scytalone dehydratase in a subject rice blast fungus, which corresponds to valine at position 75 in the amino acid sequence shown in SEQ ID NO: 4; and

(b) assessing sensitivity of the subject rice blast fungus to the scytalone dehydratase inhibitor based on the results of step (a).

8. A method for assessing sensitivity according to claim 7, wherein when the amino acid identified in step (a) is methionine, the sensitivity of the subject rice blast fungus to the scytalone dehydratase inhibitor is assessed to be lower than that of a wild-type rice blast fungus in step (b).

9. A kit for screening an inhibitor, comprising the scytalone dehydratase of claim 4.

10. A kit for assessing a rice blast fungus resistant to a scytalone dehydratase inhibitor, comprising a pair of primers designed to flank a nucleotide sequence coding for an amino acid corresponding to valine at position 75 in the amino acid sequence shown in SEQ ID NO: 4.

11. A kit for assessing a rice blast fungus resistant to a scytalone dehydratase inhibitor, comprising an oligonucleotide including a nucleotide sequence coding for an amino acid corresponding to valine at position 75 in the amino acid sequence shown in SEQ ID NO: 4.